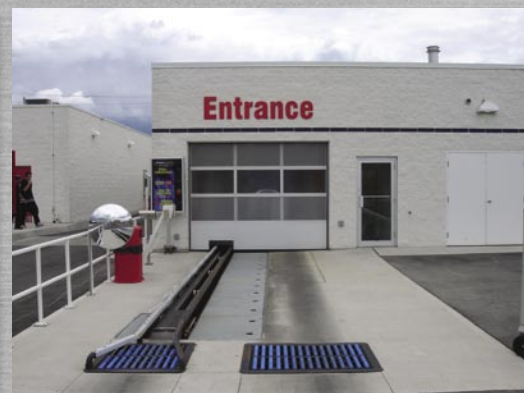




POW'AIR'DOR TM

PNEUMATIC DOOR OPERATING SYSTEMS



RELEASE THE POWER OF AIR

POW'AIR'DOR™ APPLICATIONS

In the late 1980's Upwardor pioneered and patented a pneumatic powered, rod-less cylinder for door operating systems. This was the result of an integrated approach to new product development, which propelled Upwardor to the forefront of the sectional door industry. The Pow'Air'Dor product has proven capable of operating over one million cycles and out performing other manufacturers. By considering doors, operators, controls and associated hardware as an inter-dependent system, Upwardor created a comprehensive package of door products engineered to withstand the most demanding environmental conditions.

CAR WASH



POW'AIR'DOR is constructed from virtually non-corrosive aluminium materials allowing it to withstand the harsh environments found in car wash applications. Through this unique design and built in safety features, the POW'AIR'DOR system is virtually maintenance free providing maximum performance, dependability and safety.

POW'AIR'DOR operates on compressed air. In the event of an emergency or power outage, reserved air pressure in the compressor reservoir tank allows the door to continue to operate.

TRANSIT



EMERGENCY SERVICES



THE POW'AIR'DOR™ ADVANTAGE

Upwardor manufactures pneumatic door operators in both Trolley and Side Mount models. For all types of lifts we utilize guided, rodless cylinders of high quality anodized, corrosion resistant aluminum. A patented safety pressure relief system minimizes the force of 100psi (6.8 bar) to 20psi (1.36 bar) preventing damage to the door during operation.

Other benefits of the POW'AIR'DOR cylinder are:

- Only one moving part, no cables, pulleys or belts
- Sealed, closed loop, energy efficient system
- Adjustable speed, up to 3 times faster than electric operators
- Adjustable end of cycle cushioning
- Low voltage controls for safety
- "Air Only" option for "explosion proof" applications

POW'AIR'DOR CYLINDER

Sturdy Cylinder

- Constructed of non corrosive, light weight aluminum
- Low profile perfect for applications with minimal headroom

One Piece Shuttle and Piston Body

- Robust design - integrated for high strength and long lifetime
- Easy maintenance

Sealing Bands

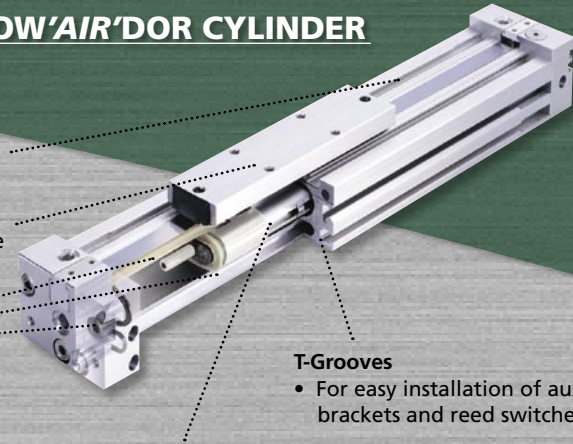
- Inner sealing band in polyurethane. Unique shape makes cylinder air-tight
- Outer band in stainless steel protects against dust, debris, etc.

T-Grooves

- For easy installation of auxillary mounting brackets and reed switches

Oval-shaped Piston

- Low overall height - saves space



TROLLEY MODEL

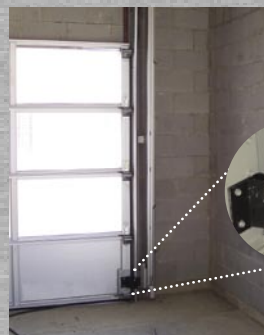
Trolley Model models connect to the door through an Adjustable Cushion Arm.

Features include:

- Mounting near ceiling, (4") headroom required
- No "cable jumping"
- Built-in safety reverse **optional*
- Adjustable speed and force control **optional pkg. 3&4*



ADJUSTABLE CUSHION ARM



OPERATOR DOOR ATTACHMENT

SIDE MOUNT

Side Mount models are utilized only when trolleys are not applicable, e.g. high lift track, low headroom or when obstructions prevent Trolley Model installation.

Features include:

- Door operated from bottom section and not by shaft of door to prevent cables jumping
- Safety reverse, speed and cushion control **optional pkg. 3&4*
- Mounted vertically at either side of door, only 6" (203mm) side room required

NYSTROL ROLLER

The Nystrol Roller is made from the toughest materials, making it long lasting and maintenance free.

Features Include:

- Stainless Steel Shaft/Clip: Corrosion resistant, extended life, high strength
- Nylon Roller: Quiet, durable
- Self-Lubricating: Bronze bushing prevents wearing of roller, no ball bearings to rust **optional with all packages and doors*



POW'AIR'DOR™ CONTROL PACKAGES

Reliable Controls are an essential part of POW'AIR'DOR Systems. Depending on the application, controls are fully automated, such as controls found in today's car washes; or controls are simple manually operated devices.



FRL Unit



Lever Valve

1. MANUAL OPERATION PACKAGE:

- No electrical signal, open and close function operated by means of a manual lever valve
- Suitable for explosive environments, truck washes, self serve car washes or other non-automated environments

Standard Key Features:

- Lever Valve
- Filter, Regulator, Lubricator (FRL) unit



Valve/Control Panel

2. ELECTRIC OPERATION PACKAGE:

- Electrical signal opens and closes door by means of a push button station
- Suitable for automotive environments, car wash or transit environments

Standard Key Features:

- NEMA 4 Valve Panel containing directional valve, speed control, noise muffler and electrical components with open/close push buttons installed on control box cover
- FRL unit

Note: Photo eye base installed for future use

3. SEMI AUTOMATED PACKAGE:

- Semi-automated system uses a valve panel to control the open/close cycle of the door, controls carriage movement, speed and cushioning"
- Suitable for car wash, emergency medical service (EMS) stations, fire stations, high cycle applications or transit environments

Standard Key Features:

- Nema 4 Valve Panel containing directional valve, speed control, noise muffler, power cut off switch, reversing pressure switch and electrical components
- Wall Mount Nema 4 Push Button Station
- Cushion Blocks
- FRL unit



Valve/Control Panel

4. FULLY AUTOMATED PACKAGE:

- For all automated applications
- Operates on low voltage (24V) and runs independently of the Car Wash Controller
- Programmable Logic Controller (PLC) stimulates over 430 contacts – the most sophisticated Door PLC Panel in the industry making it compatible with all types of wash control systems
- One PLC Panel operates 2 doors individually ie: entrance and exit doors
- Suited for Touchless or Tunnel Car Wash Applications

Key Features:

- Nema 4 Valve Panel containing directional valve, speed control, cushion valve, power cut off switch, reversing pressure switch, noise muffler
- Nema 4 Programmable Logic Control (PLC) Panel houses all electrical components and trouble shooting switches
- Reed switches (switches for sensing door position)
- FRL unit

Note: All packages include: Filter, Regulator, Lubricator (FRL) unit, Fittings, Tubing, Mounting Brackets and Lubricant



PLC Control Panel



Valve Panel

ADDITIONAL OPTIONS

Photos Eyes: Safety reversing device - when infrared red beam is broken door reverses

Reversing Pressure Switch: An internal safety feature requiring no components on the door - In the event a closing door touches an obstruction the switch senses a change in pressure and instantly reverses the door

Timer: Delayed timer to close door

Pneumatic Controlled Emergency Open & Close: In the event of power failure, this feature allows you to open or close the door

Autodrain: Drains compressor automatically to eliminate moisture build up